the blood-pressure. Following the administration of amyl nitrite a rise in spinal pressure is noted. As the result of investigation Dixon and Halliburton conclude that the cranial contents cannot any longer be regarded as a fixed quantity without the power of expanding or contracting in volume. The cerebrospinal pressure is influenced passively to a small extent by changes in the arterial and venous pressures, but these are insignificant compared with the independent changes in pressure which occur as the result of secretory activity. Of all the conditions which influence the secretion of the spinal fluid Dixon and Halliburton are inclined to attach the most importance to a deficiency of oxygen or an excess of carbon dioxid in the blood.

Blood Findings in Epilepsy.—FACKENHEIM (*Congress for Internal Medicine at Wiesbaden*, 1914) has made systematic blood examinations over a period of two years upon 100 epileptics of the chronic progressive type, and has found these results: 67 per cent. showed a reduction of hemoglobin to between 50 and 60 per cent.; 31 per cent. showed an anemia of 60 to 70 per cent., and only two cases had a hemoglobin of over 85. Apparently the reduction in hemaglobin stands in direct relation to the epileptic attacks, that is, shortly before the attacks the reduction of the hemoglobin was greatest, while in the intervals the hemoglobin tends to approach a constant level in the separate cases. The number of white-blood cells was considerably increased shortly before an attack and markedly increased afterward in 78 per cent., the mononuclear cells of the large type showing an especial increase. In every case there was an increase in the rapidity of the coagulation time averaging between two and three minutes. The coagulation time was most rapid in the period of about ten hours preceding an attack. In the beginning of a status epilepticus, blood coagulation may take place in fifteen seconds, in another case it occurred in twenty-four seconds, and then become decreased over a period of about two days following the attack. Fackenheim discourses somewhat upon the varying relationship of the reflexes to the attacks as well as disturbances in metabolism and believes that the cause of the phenomena of epilepsy is to be found in disorders of the internal secretions.

Lipemia.—SAKAI (*Biochem Zeitschr.*, 1914, lxii, 387) was able to show that lipemia cannot be produced by feeding fats to normal dogs, because they leave the blood as rapidly as they enter it from the intestines. It can be induced, however, in dogs which have been made anemic by venesection, or poisoned by phenylhydrazin hydrochloride. It occurs when the hemoglobin reaches between 20 and 30 per cent., and is most pronounced in animals which were in a good state of nourishment when the experiments were commenced. Lipemia, caused by giving a diet poor in fats, and associated with a rapid loss in weight, is increased by the administration of milk. Since in some anemic animals a strong lipemia occurs after the use of palmin, whereas this does not occur in the normal, one must assume that in the former case fats leave the blood more slowly than normal. Suitable chemical analyses gave fat values up to 5 per cent. in the blood serum, and the cholesterin content was likewise increased, though to a less degree. This increase is probably explained on the basis of its ready solubility in fats. One would expect that this increased transportation of fats with a cachexia would result in a corresponding loss of body protein, but such is by no means the case, nor is every cachexia associated with a lipemia. Surface tension tests show that for each individual of a species there exists a fairly constant normal lipase value for the blood serum. This falls rapidly after the production of anemia, and seems to return to normal in a manner inversely proportionally to the grade of lipemia induced. It is the same way in cases made anemic by poison, but in animals poisoned by phloridzin practically no fall in the lipase content occurs. It would, therefore, appear that the lipemia in these experiments, at least, was due to an inability to rid the blood of fats by reason of a blood serum deficient in lipase.

The Clotting of Blood as Seen with the Ultramicroscope.—Using the slit ultramicroscope of Seidentopf, the oxalated plasma of various animals and suitable amounts of an aqueous solution of thrombin, Howell (*Jour. of Physiol.*, 1914, xxv, 143) has studied the process of coagulation, which in accord with the results of Stuebel, proceeds after the manner of crystal formation. The process is most beautifully seen when solutions of thrombin and fibrinogen are used. Aqueous solutions of thrombin exhibit a few particles showing Browman movement, but the field is practically dark; fibrinogen solutions, however, show numerous active particles and a strongly luminous light-cone in which individual particles can not be seen. Howell inclines toward the view that under the influence of thrombin there occurs an aggregation of the invisible particles (amicrons) of this light-cone with further consolidation into the needle-like crystals of fibrin, beautifully shown in the article by photomicrographs. Howell finds no evidence of the fibrin network so often described, except when the conditions are such as give rise to incomplete clotting.

On the Effect of Extirpation of the Spleen on the Course of Pernicious Anemia.—A. v. Decastello (*Deutsch. med. Woch.*, 1914, xl, 639, 692) reports in detail observations in 5 cases of pernicious anemia subjected to splenectomy. Frequent examinations were made over a period of months. From his small series of cases Decastello feels that improvement in the blood-picture and in the general condition of the patient can be anticipated with considerable confidence; indeed, the patient may return practically to normal. This improvement, however, in the light of our present knowledge, is more probably to be interpreted as a remission than a cure. Therefore, it is not yet justifiable to assume that removal of the spleen eradicates the cause of the disease, or that the disease is due to a previously increased hemolytic activity on the part of the spleen. Decastello thinks that it is much more likely that the operation produces nutritive stimuli to the bone marrow through some change in metabolism as a result of the loss of the spleen.

Studies of the Uric Acid of the Blood.—E. Steinitz (*Deutsch. med. Woch.*, 1914, xl, 953) has made a study of the uric acid of the blood quantitatively by the method of Folin and Denis. He finds that the normal blood of a patient on a purin-free diet always contains uric acid in amounts sufficient for quantitative determination. The value of this endogenous